REMARKS

In the Office Action of March 6, 2008, the Examiner requested a change to the title of the application to make it more descriptive. The Examiner also rejected claims 14, 23, 39 and 48 under 35 USC 112. Claims 35-37, 14, 39-46 and 48-49 were rejected under 35 USC 103(a) as being unpatentable over McCallum in view of Price et al (Price). Claims 38 and 47 were rejected under 35 USC 103(a) as being unpatentable over McCallum in view of Price and further in view of Bentley. Claims 34, 2,4,8,13,16-20 and 33 were rejected under 35 USC 103(a) as being unpatentable over McCallum in view of Price and further in view of Wiegand. Claims 21-23 were rejected under 35 USC 103(a) as being unpatentable over McCallum in view of Price and Wiegand and further in view of Bentley.

By the present amendment, applicants have amended the title as suggested by the Examiner and also have amended claims 14, 23, 39 and 48 to address the 112 issues raised by the Examiner, essentially by changing "and" to "or" and "laundry" to "automatic cleaning." Minor issues have also been addressed in claims 37 and 42. Applicants submit that all of the 112 issues have been successfully addressed.

In reviewing the claims presented by the applicants, the Examiner has failed to consider all of the elements of the claims, and to present competent prior art teaching those elements, as well as a legitimate basis for asserting a *prima facie* basis for obviousness as is the Examiner's obligation.

For example, the Examiner states at the top of page 8 of the Action that "McCallum and Price et al fail to teach using a conduit from the water supply to the electrical components to cool the electrical components." The Examiner fails to note that claim 34 not only recites the element described by the Examiner, but also the element: "a conduit leading from the electrical components to the cavity in the appliance to be used in the cleaning of the objects." The Examiner relies only on the disclosure of Wiegand for teaching a solution to the problem of

cooling electrical components. In the Response to Office Action of September 5, 2007, applicants pointed out the deficiencies of Wiegand's teachings with respect to this claim language, and these deficiencies have not been addressed or overcome by the Examiner.

Applicants pointed out that in the arrangement shown by Wiegand, a recirculation system is provided in which water is continuously recirculated through bus bars by utilization of a pump. The Wiegand arrangement requires the use of a heat exchanger to dissipate heat from the recirculating water and also an ion exchange unit to keep the conductivity of the water at a minimum. Wiegand's arrangement specifically teaches away from utilizing the recirculating water for any other purpose, such as cleaning objects, but rather the water is only continuously recirculated and continuously de-ionized by the ion exchange unit. Thus, Weigand does not provide any teaching relative to the element in claim 34 which reads: "a conduit leading from the electrical components to the cavity in the appliance to be used in the cleaning of the objects."

The Examiner acknowledges that none of the other references even mention the use of the water supply to cool the electrical components, so certainly none of the other references would teach providing a conduit leading from the electrical components to the cavity in the appliance where the cleaning of the objects occurs. Since this element is not shown or suggested in any of the references relied on by the Examiner, and such an arrangement is specifically taught away from by Wiegand, applicants respectfully submit that claim 34 and each of its dependent claims are patentably distinguishable over the references relied on by the Examiner.

The Examiner further does not provide any specific prior art teaching relative to the limitation: "a sensing system provided within a cavity of the automatic cleaning appliance is configured to measure properties of wash liquor in the cavity of the automatic cleaning appliance and control dispensing of the chemical composition into the automatic cleaning appliance based on the measurement." The Examiner acknowledges, with respect to this same limitation in claim 35, that "McCallum fails to teach that the system included . . . a sensing/control system as claimed" (page 4). The Examiner states that McCallum teaches a

manual control of the electrolytic cell "by taking a manual measurement of the sodium hypochlorite concentration downstream of the electrolytic cell and adjusting the settings of the cell as necessary." The Examiner then relies on *In re Venner* and *In re Rundell* to state that "automation of a previous manual activity is obvious to one of ordinary skill in the art absent a showing of unexpected results. That is not the holding of these cases. Rather, the cases state that "it is not invention to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result." In the Venner case, the claim in question included the elements "time-controlled means" and "means controlled by said time-controlled means and controlling said power-operated means in order to move said middle section downwardly." In that case, the Examiner, the Board, and the CCPA did not find it sufficient to merely rely on this statement to find that the claim was not patentable. Instead, they all relied on specific prior art disclosures that taught "timing devices" and other specific references that taught "automatic means."

In the present claim, the element in question is not defined broadly as a mechanical or automatic "means," as was present in *Venner*, but rather the claim specifically defines a "sensing system" which measures "properties of wash liquor in the cavity." Thus a specific structure, a sensor, is claimed, and the location of that sensor is also defined: "within a cavity of the automatic cleaning appliance." Further, the configuration of this specific structure is defined: "configured to measure properties of wash liquor in the cavity of the automatic cleaning appliance and control dispensing of the chemical composition into the automatic cleaning appliance based on the measurement."

Hence, a broadly claimed "means" as was present in *Venner* is not present in claim 34, and so the broad holding of *Venner* does not pertain to claim 34.

Further, in the present Office Action, the Examiner does not identify any references which provide the components of the sensing/control system as claimed, or as the Examiner/Board and CCPA did in the *Venner* case, but rather the Examiner points only to a

manual arrangement taught by McCallum, and then cites the broad holding from *Venner*. Such a rejection does not meet the standard of presenting a *prima facie* case that is required of the Examiner.

The situation in *In re Rundell* is even more distinct from the present situation. In that case, the claim merely listed "automatic operating means" and the applicant argued that the claim was patentable over the art because the claim call for "an automatic mechanism." The CCPA held that "The mere statement that a device is to be operated automatically instead of by hand, without a claim specifying any particular automatic mechanism, is not the statement of an invention."

As pointed out above, in the present claim 34, a particular mechanism, the sensor, is identified, as well as the location of the sensor, "within a cavity of the automatic cleaning appliance." Further, the configuration of this specific structure is defined: "configured to measure properties of wash liquor in the cavity of the automatic cleaning appliance and control dispensing of the chemical composition into the automatic cleaning appliance based on the measurement."

For this additional reason, applicants submit that claim 34 and its dependent claims are each patentably distinguishable over the references relied on by the Examiner.

If the Examiner is relying on what is "common knowledge" or what is "well-known" in the art to support the obviousness of the sensor/control system, applicant requests that the examiner to produce art evidencing this "common knowledge" so that applicant can properly address the rejection made by the Examiner. MPEP 2144.03C.

Dependent claim 23 has been amended to define the back-washing mechanism as one of a chemical technique or a thermal technique. Since the Examiner located only a back-washing mechanism based on a mechanical technique, the basis for rejecting claim 23 no longer exists, and for this additional reason, applicants submit that claim 23 is patentable over the references relied on by the Examiner.

Independent claim 35 contains the same sensor/control system as discussed with respect to claim 34 (and it is with respect to claim 35 that the Examiner relied on the holdings from the *Venner* and *Rundell* cases). For the same reasons as set forth above with respect to claim 34, applicants respectfully submit that the Examiner has not provide a *prima facie* basis for rejection of claim 35 due to the lack of a teaching of the claimed sensor/control system. Applicants therefore submit that claim 35 and its dependent claims are each patentable over the art relied on by the Examiner.

Claim 35 also specifically defines the structure of the electrochemical cell device as including a storage space provided in the electrochemical cell device. The Examiner relies on the disclosure of McCallum, and specifically the embodiment of FIG. 5, for teaching this structure. However, McCallum does not include a storage space in the electrochemical cell device. Instead, McCallum discloses a separate "saturator 52" in which rock salt is to be placed. This "saturator" is stated to be similar to a brine tank for commercial water softeners (col. 15 line 36). This structure is distinct from and separated from the electrochemical cell device which is identified as an "electrolysis cell 58." Positioned between these two separate structures is a third structure, the "mixer 57." The saturator 52 is connected to the mixer 57 though a specifically sized brine tube 56. The mixer is also supplied with water through the bypass conduit 53 and a water control tube 55. Since the storage space, being the saturator 52, is not located in the electrochemical cell device as required by the claim, the disclosure of McCallum falls short of teaching the element defined in the claim.

It should also be noted that the embodiment of FIG. 5 does not envision the use of a sensor or adjustment mechanism, but rather relies on the area ratios of the brine tube 56 and the water control tube 55 for achieving a proper concentration of chemicals in the bottle. In the embodiment of FIGs. 1 and 2, where manual adjustment is discussed, McCallum teaches to provide the salt in the pool skimmer or other filter intakes (col. 13, line 39), a structure which is physically far removed from the electrochemical cell device.

For each of these separate reasons, applicants respectfully submit that claim 35 and each of its dependent claims are patentably distinguishable over the references relied on by the Examiner.

Independent claim 41 also defines the sensor/control system discussed above with respect to claims 34 and 35. For each of the reasons set forth with respect to those claims, applicants submit that claim 41 and its dependent claims are each patentably distinguishable over the references relied on by the Examiner.

Independent claim 41 further defines "a user openable door for said cavity and a lockout mechanism operatively associated with the door to prevent opening of said door under certain conditions, and an activating apparatus for said lockout mechanism, said activating apparatus including a sensor arranged to detect a concentration level of chlorine in said cavity." The Examiner does not provide any reference which discloses such a "lockout mechanism" as defined, nor the "activating apparatus for said lockout mechanism" as defined, nor the "sensor arranged to detect a concentration level of chlorine in said cavity" as defined. Instead, the Examiner merely states that "conventional dishwashing appliances, such as those shown by Price et al, typically included automatic locking mechanisms for the user operable door to prevent a user from opening the door during hazardous times for safety purposes." The one reference that the Examiner points to, Price et al, does show a user operable door in FIG. 2, however, there is no mention in Price of any type of automatic locking mechanism of any type, let alone the type specifically defined in claim 41. The Examiner appears to be relying on "common knowledge" for this rejection, and since applicants are not aware of any dishwashing appliances which include lockout mechanisms with a sensor arranged to detect a concentration level of chlorine in the washing cavity, applicants demand that the Examiner produce a reference showing such a structure to support the rejection made by the Examiner, and to allow applicants to address the teachings of such a reference MPEP 2144.03C.

Since the Examiner has not provided any reference which discloses the lockout mechanism and sensor as defined in claim 41, for this additional reason applicants respectfully submit that claim 41 and each of its dependent claims is patentably distinguishable over the references relied on by the Examiner.

In view of the above amendments and remarks, applicants submit that each of the claims are in full compliance with section 112 and each of the claims are patentably distinguishable over the references relied on by the Examiner.

Since applicants have not amended any of the independent claims, but rather have only pointed out the deficiencies in the disclosures of the prior art relied on by the Examiner to reject these claims, applicants submit that any further rejection of these claims based in whole or in part on newly relied on art should be a non-final rejection so that applicants are permitted an opportunity to address the newly relied on art being applied to these unamended claims.

Respectfully submitted,

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